

Appl. No. : 10/803,959  
Amendment filed under 37 C.F.R. § 1.114(c)

Q80517

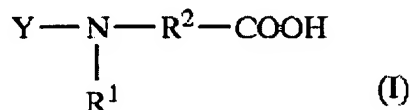
## **AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

### **LISTING OF CLAIMS:**

**1. (canceled).**

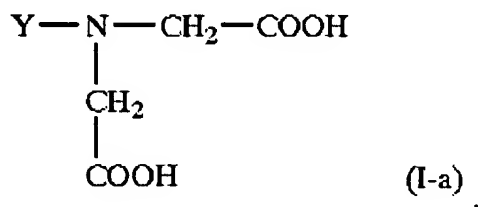
**2. (currently amended):** A planographic printing plate precursor comprising an intermediate layer containing a polymer having a structure represented by the following formula (I) and at least one group selected from an onium group and an acidic group at its side chain and an infrared laser photosensitive positive recording layer containing an infrared absorbing agent disposed on a support in this order:



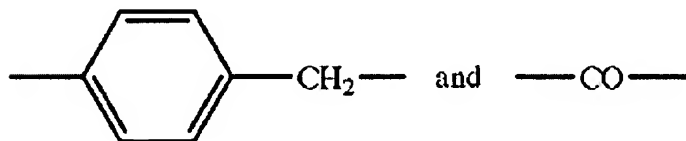
wherein Y represents a connecting group connected with a main chain of the polymer; R<sup>1</sup> is a hydrocarbon group substituted with a carboxylic acid group; and R<sup>2</sup> is a straight-chain hydrocarbon group or an hydrocarbon group substituted with a carboxylic acid group.

**3. (previously presented):** The planographic printing plate precursor according to claim 2, wherein in the formula (I), R<sup>1</sup> is an alkyl group substituted with a carboxylic acid group, and R<sup>2</sup> is a straight-chain alkylene group.

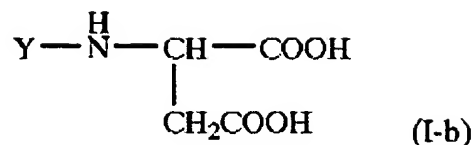
**4. (currently amended):** A planographic printing plate precursor comprising an intermediate layer containing a polymer having a structure represented by the following formula (I-a) and at least one group selected from an onium group and an acidic group at its side chain and an infrared laser photosensitive positive recording layer containing an infrared absorbing agent disposed on a support in this order:



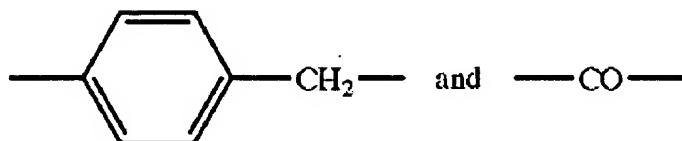
wherein Y represents a connecting group selected from the following structures



**5. (currently amended):** A planographic printing plate precursor comprising an intermediate layer containing a polymer having a structure represented by the following formula (I-b) and at least one group selected from an onium group and an acidic group at its side chain and an infrared laser photosensitive positive recording layer containing an infrared absorbing agent disposed on a support in this order:



wherein Y represents a connecting group selected from the following structures



**6. (previously presented):** The planographic printing plate precursor according to claim 2, wherein a content of the structure represented by the formula (I) in the polymer is 5% by mole or more.

**7. (previously presented):** The planographic printing plate precursor according to claim 2, wherein the polymer is a polymer obtained by copolymerizing a monomer having the structure represented by the formula (I) with another monomer.

**8. (previously presented):** The planographic printing plate precursor according to claim 7, wherein the another monomer is a monomer having an onium group.

**9. (previously presented):** The planographic printing plate precursor according to claim 7, wherein the another monomer is a monomer having an acidic group.

**10. (previously presented):** The planographic printing plate precursor according to claim 7, wherein the another monomer is a monomer having a functional group that is capable of interaction with the recording layer.

**11. (previously presented):** The planographic printing plate precursor according to claim 2, wherein a content of the polymer in the intermediate layer is 50 to 100% by mass based on a total solid content constituting the intermediate layer.

**12. (previously presented):** The planographic printing plate precursor according to claim 2, wherein a weight average molecular weight of the polymer is 500 to 1,000,000.

**13. (previously presented):** The planographic printing plate precursor according to claim 2, wherein a coating amount of the intermediate layer after drying is 1 to 100 mg/m<sup>2</sup>.

**14. (previously presented):** The planographic printing plate precursor according to claim 2, wherein the recording layer contains an alkali-soluble resin.

**15. (previously presented):** The planographic printing plate precursor according to claim 14, wherein the alkali-soluble resin has an acidic group selected from the group consisting

of a phenolic hydroxyl group, a sulfonamide group, a substituted sulfonamide acidic group, a carboxylic acid group, a sulfonic acid group and a phosphoric acid group.

**16. (canceled).**

**17. (canceled).**

**18. (previously presented):** The planographic printing plate precursor according to claim 2, wherein the recording layer has a multilayer structure.

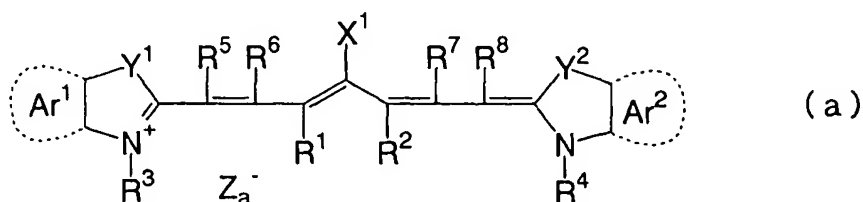
**19. (previously presented):** The planographic printing plate precursor according to claim 2, wherein the support is a support that has undergone hydrophilicizing treatment using an alkali metal silicate.

**20. (new):** The planographic printing plate precursor according to claim 2, wherein the absorbing agent is a cyanine dye.

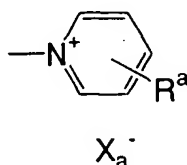
**21. (new):** The planographic printing plate precursor according to claim 4, wherein the absorbing agent is a cyanine dye.

**22. (new):** The planographic printing plate precursor according to claim 5, wherein the absorbing agent is a cyanine dye.

**23. (new):** The planographic printing plate precursor according to claim 2, wherein the infrared absorbing agent is represented by formula (a)



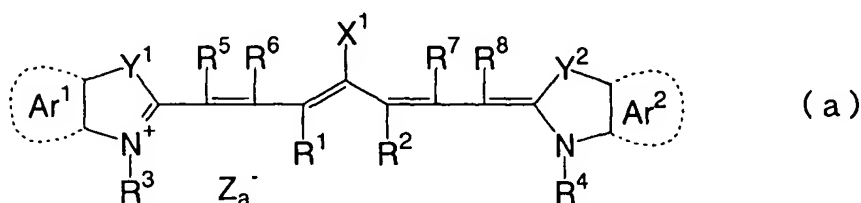
wherein  $X^1$  represents a hydrogen atom, a halogen atom,  $-NPh_2$ ,  $X^2-L^1$  or a group shown below



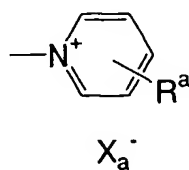
$X^2$  represents an oxygen atom or a sulfur atom and  $L^1$  represents a hydrocarbon group having 1 to 12 carbon atoms, an aromatic ring having a heteroatom or a hydrocarbon group having 1 to 12 carbon atoms and containing a heteroatom,  $X_a^-$  is a counter anion,  $R^a$  represents a substituent selected from a hydrogen atom, an alkyl group, an aryl group, a substituted or unsubstituted amino group and a halogen atom,  $R^1$  and  $R^2$  each independently represent a hydrocarbon group having 1 to 12 carbon atoms,  $Ar^1$  and  $Ar^2$ , which may be the same or different, each represent an aromatic hydrocarbon group which may have a substituent,  $Y^1$  and  $Y^2$ , which may be the same or different, each represent a sulfur atom or a dialkylmethylene

group having 12 or less carbon atoms,  $R^3$  and  $R^4$ , which may be the same or different, each represent a hydrocarbon group, which may have a substituent and has 20 or less carbon atoms,  $R^5$ ,  $R^6$ ,  $R^7$  and  $R^8$ , which may be the same or different, each independently represent a hydrogen atom or a hydrocarbon group having 12 or less carbon atoms, and  $Za^-$  represents a counter anion.

**24. (new):** The planographic printing plate precursor according to claim 4, wherein the infrared absorbing agent is represented by formula (a)



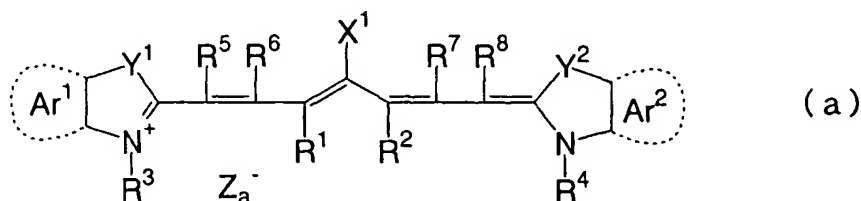
wherein  $X^1$  represents a hydrogen atom, a halogen atom,  $-NPh_2$ ,  $X^2-L^1$  or a group shown below



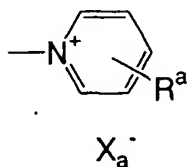
$X^2$  represents an oxygen atom or a sulfur atom and  $L^1$  represents a hydrocarbon group having 1 to 12 carbon atoms, an aromatic ring having a heteroatom or a hydrocarbon group having 1 to 12 carbon atoms and containing a heteroatom,  $Xa^-$  is a counter anion,  $R^a$  represents a substituent selected from a hydrogen atom, an alkyl group, an aryl group, a substituted or unsubstituted amino group and a halogen atom,  $R^1$  and  $R^2$  each independently represent a hydrocarbon group having 1 to 12 carbon atoms,  $Ar^1$  and  $Ar^2$ , which may be the same or

different, each represent an aromatic hydrocarbon group which may have a substituent,  $Y^1$  and  $Y^2$ , which may be the same or different, each represent a sulfur atom or a dialkylmethylene group having 12 or less carbon atoms,  $R^3$  and  $R^4$ , which may be the same or different, each represent a hydrocarbon group, which may have a substituent and has 20 or less carbon atoms,  $R^5$ ,  $R^6$ ,  $R^7$  and  $R^8$ , which may be the same or different, each independently represent a hydrogen atom or a hydrocarbon group having 12 or less carbon atoms, and  $Za^-$  represents a counter anion.

**25. (new):** The planographic printing plate precursor according to claim 5, wherein the infrared absorbing agent is represented by formula (a)



wherein  $X^1$  represents a hydrogen atom, a halogen atom,  $-NPh_2$ ,  $X^2-L^1$  or a group shown below



$X^2$  represents an oxygen atom or a sulfur atom and  $L^1$  represents a hydrocarbon group having 1 to 12 carbon atoms, an aromatic ring having a heteroatom or a hydrocarbon group having 1 to 12 carbon atoms and containing a heteroatom,  $Xa^-$  is a counter anion,  $R^a$  represents a substituent selected from a hydrogen atom, an alkyl group, an aryl group, a substituted or



unsubstituted amino group and a halogen atom,  $R^1$  and  $R^2$  each independently represent a hydrocarbon group having 1 to 12 carbon atoms,  $Ar^1$  and  $Ar^2$ , which may be the same or different, each represent an aromatic hydrocarbon group which may have a substituent,  $Y^1$  and  $Y^2$ , which may be the same or different, each represent a sulfur atom or a dialkylmethylene group having 12 or less carbon atoms,  $R^3$  and  $R^4$ , which may be the same or different, each represent a hydrocarbon group, which may have a substituent and has 20 or less carbon atoms,  $R^5$ ,  $R^6$ ,  $R^7$  and  $R^8$ , which may be the same or different, each independently represent a hydrogen atom or a hydrocarbon group having 12 or less carbon atoms, and.  $Za^-$  represents a counter anion.

**26. (new):** The planographic printing plate precursor according to claim 2, wherein the specific polymer included in the intermediate layer further comprises a structure derived from a monomer selected from substituted or non-substituted acrylates or methacrylates.

**27. (new):** The planographic printing plate precursor according to claim 4, wherein the specific polymer included in the intermediate layer further comprises a structure derived from a monomer selected from substituted or non-substituted acrylates or methacrylates.

**28. (new):** The planographic printing plate precursor according to claim 5, wherein the specific polymer included in the intermediate layer further comprises a structure derived from a monomer selected from substituted or non-substituted acrylates or methacrylates.

**29. (new):** The planographic printing plate precursor according to claim 26, wherein the monomer is selected from the group consisting of methylacrylate, ethylacrylate, propylacrylate, butylacrylate, amylacrylate, hexylacrylate, cyclohexylacrylate, octylacrylate, phenylacrylate, benzylacrylate, 2-chloroethylacrylate, 4-hydroxybutylacrylate, glycidylacrylate, N-dimethylaminoethylacrylate, methylmethacrylate, ethylmethacrylate, propylmethacrylate, butylmethacrylate, amylmethacrylate, hexylmethacrylate, cyclohexylmethacrylate, octylmethacrylate, phenylmethacrylate, benzylmethacrylate, 2-chloroethylmethacrylate, 4-hydroxybutylmethacrylate, glycidylmethacrylate and N-dimethylaminoethylmethacrylate.

**30. (new):** The planographic printing plate precursor according to claim 27, wherein the monomer is selected from the group consisting of methylacrylate, ethylacrylate, propylacrylate, butylacrylate, amylacrylate, hexylacrylate, cyclohexylacrylate, octylacrylate, phenylacrylate, benzylacrylate, 2-chloroethylacrylate, 4-hydroxybutylacrylate, glycidylacrylate, N-dimethylaminoethylacrylate, methylmethacrylate, ethylmethacrylate, propylmethacrylate, butylmethacrylate, amylmethacrylate, hexylmethacrylate, cyclohexylmethacrylate, octylmethacrylate, phenylmethacrylate, benzylmethacrylate, 2-chloroethylmethacrylate, 4-hydroxybutylmethacrylate, glycidylmethacrylate and N-dimethylaminoethylmethacrylate.

**31 (new):** The planographic printing plate precursor according to claim 28, wherein the monomer is selected from the group consisting of methylacrylate, ethylacrylate, propylacrylate,

butylacrylate, amylacrylate, hexylacrylate, cyclohexylacrylate, octylacrylate, phenylacrylate, benzylacrylate, 2-chloroethylacrylate, 4-hydroxybutylacrylate, glycidylacrylate, N-dimethylaminoethylacrylate, methylmethacrylate, ethylmethacrylate, propylmethacrylate, butylmethacrylate, amylmethacrylate, hexylmethacrylate, cyclohexylmethacrylate, octylmethacrylate, phenylmethacrylate, benzylmethacrylate, 2-chloroethylmethacrylate, 4-hydroxybutylmethacrylate, glycidylmethacrylate and N-dimethylaminoethylmethacrylate.